

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2018 / 2019

PCA 0084 – COMPUTER SYSTEM AND WEB DESIGN
(Foundation in Business)

31 MAY 2019
9.00am – 11.00am
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 4 pages (excluding the cover page) with 5 questions only.
2. Attempt **ALL** questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

QUESTION 1 [10 Marks]

- a. Name **ONE (1)** suitable input or output device to do the following tasks.
- To produce audio output that can be heard by many listeners.
 - To take and enlarge images generated by a computer and output them onto a white screen, wall or any white surface.
 - To use keys to type characters or numbers into a computer.
 - To click, right click or double click to enter data into a computer.
- (2 marks)
- b. Optical Character Recognition (OCR) and Magnetic Ink Character Recognition (MICR) are types of scanning and reading devices. Briefly explain the function of these two devices.
- (2 marks)
- c. Some printers are called multifunction peripheral or all-in-one device. What are the functions provided by this type of peripheral?
- (2 marks)
- d. Give **TWO (2)** reasons why there are so many different storage devices?
- (2 marks)
- e. Why do we need to format the disk before using it? Briefly explain.
- (2 marks)

QUESTION 2 [10 Marks]

- a. **Figure 1** shows the machine cycle with a pipelining technology. Based on the figure below, briefly describe the concept of pipelining and what effect does it have on the processor.

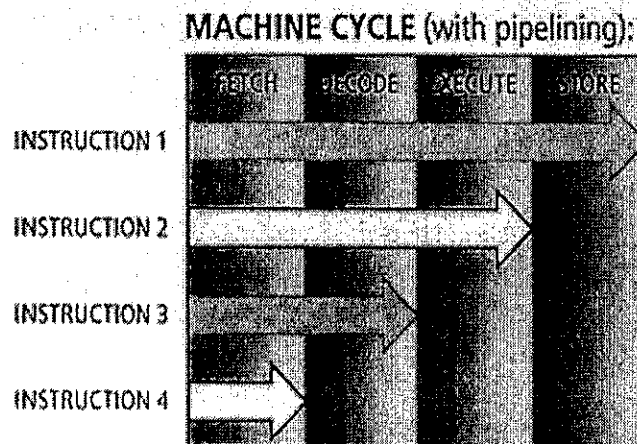


Figure 1

- b. Briefly explain what is ASCII code?

(2 marks)

(2 marks)

Continued...

- c. What is the purpose of the following computer components?
- Ports
 - Expansion slots
 - Memory cache
- (3 marks)
- d. There are four categories of application software. Answer the following questions.
- List any **TWO (2)** of the categories.
(1 mark)
 - From the four categories of application software, which category consists the following examples of software?
 - Web Browser, Email, VoIP
 - Desktop Publishing, Paint.Net, Computer Aided Design (CAD)(1 mark)
- e. Microsoft Office is an example of software suite. What is software suite?
(1 mark)

QUESTION 3 [10 Marks]

- a. An operating system is the most important software that runs on a computer. It contains a set of programs that work together to coordinate all the activities among computer hardware resources. Based on this information, answer the following questions.
- Why do we sometimes perform a warm boot?
 - Why Graphical User Interface (GUI) is said to be a user friendly interface?
 - What is a server operating system?
- (3 marks)
- b. If you notice your computer is running slow, you should consider running the defragmenter program. Briefly explain why.
(1 mark)
- c. **Figure 2** shows the three basic components involved to create communications in networking. Elaborate further the figure by giving **ONE (1)** example of device for each component and the process involved between the components.

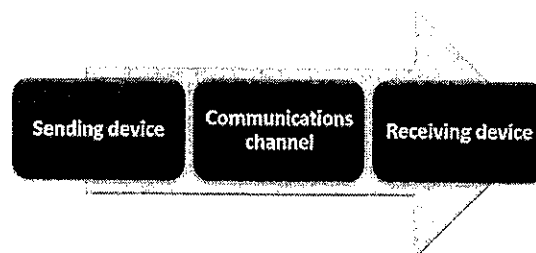


Figure 2

(2 marks)

- d. Refer to **Table 1**. Match the protocol name in the left column to its purpose in the right column by writing the protocol name in the blanks provided. An example is shown below.

Table 1

Protocol name	Purpose
Ethernet	i. <u>Wifi</u> is to access wireless local area network.
Token ring	ii. _____ is to transmit data using short range radio waves
WiFi	iii. _____ is to connect wired local area network
TCP/IP	iv. _____ is to pass a special signal around the computers and devices on the network.
Bluetooth	v. _____ is to transmit data via infrared light waves.
UWB (ultra-wideband)	vi. _____ is to transmit data using short range radio waves but at high speed.
IrDA	vii. _____ is to access the internet.

(3 marks)

- e. What is an intranet?

(1 mark)

QUESTION 4 [10 Marks]

- a. In database concept, explain the following terms.

- Data integrity
- GIGO (garbage in garbage out)

(2 marks)

- b. **Table 2** shows the basic database elements that are created to hold data in a database. However, the elements showed in **Table 2** are not arranged from smallest unit of data to largest.

Table 2

Size	Smallest				Largest
Elements	Fields	Characters	Files		Records

Rearrange the elements in correct order from smallest unit of data to largest.

(2 marks)

- c. Explain what is multimedia application?

(2 marks)

Continued...

- d. State **TWO (2)** reasons why would you choose JPEG over GIF format?
(2 marks)
- e. What is the difference between immersive and non-immersive virtual reality applications?
(2 marks)

QUESTION 5 [10 Marks]

- a. How do computer viruses and worms differ when affecting a computer?
(2 marks)
- b. Both hackers and crackers are a threat to our computers. However, many computer or Internet users agree that crackers are more dangerous than hackers. Explain why.
(2 marks)
- c. One of the results of system failure is a computer may shut down without warning and without any error message. State and explain **TWO (2)** factors that can lead to system failure.
(2 marks)
- d. Information theft is a situation when you are "online" and your personal information such your name, addresses, emails, telephone numbers, bank and credit card details are stolen by third parties on the Internet. Give **TWO (2)** possible problems that may arise because of information theft.
(2 marks)
- e. Suggest **TWO (2)** ergonomic approach at your workplace to avoid injuries or illness.
(2 marks)

End of Paper